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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,451	07/19/2006	James John Schmitt	ACM3027P1US	6765

27624 7590 08/28/2009  
AKZO NOBEL INC.  
LEGAL & IP  
120 WHITE PLAINS ROAD, SUITE 300  
TARRYTOWN, NY 10591

EXAMINER
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MCGUTHRY BANKS, TIMA MICHELE

ART UNIT	PAPER NUMBER
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1793

NOTIFICATION DATE	DELIVERY MODE
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08/28/2009

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/582,451  
Filing Date: July 19, 2006  
Appellant(s): SCHMITT ET AL.

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James C. Abruzzo  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 15 June 2009 appealing from the Office action mailed 24 March 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

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**(8) Evidence Relied Upon**

<b>6,743,275</b>	<b>COBETT</b>	<b>06-2004</b>
<b>6,293,994</b>	<b>FIELD</b>	<b>09-2001</b>
<b>4,278,537</b>	<b>ALLEN</b>	<b>03-1988</b>
<b>3,554,792</b>	<b>JOHNSON</b>	<b>01-1971</b>

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 3,554,792).

Johnson teaches a binder comprising an alkali metal silicate and sodium carboxymethyl cellulose (abstract). The limitation of the binder being suitable for producing iron ore agglomerates is intended use; language in the claim that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation, for example statements of intended use or field of use. See MPEP § 2106. Regarding Claim 8, the alkali metal is sodium (column 5, line 11).

***Claim Rejections - 35 USC § 103***

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cobett (US 6,743,275 B1).

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Cobett discloses ferrous metal briquettes made from ferrous metal particles. The particles are iron oxides (column 1, lines 32 and 33). The briquettes include alkali metal silicate and other binders such as other silicates (column 2, lines 5-25). Regarding Claim 4, the alkali metal can be sodium. The amount of binder is at most 10% (line 1). In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists. See MPEP § 2144.05.

Claims 1, 3, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field et al (US 6,293,994).

Field et al teaches making fire mineral pellets. The pellets include alkali metal silicate in an amount above 0.08% (abstract). The pellet also includes cellulosic polymers (column 3, lines 5 and 6). Regarding Claims 1 and 3, Field et al does not teach the claimed range. However, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. See MPEP § 2144.05 I. Regarding Claim 4, the alkali metal is sodium (column 4, line 2). Regarding Claim 9, Field et al teaches an organic polymer (column 1, line 54).

Claims 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field et al as applied to claim 1 above, and further in view of Allen et al (US 4,728,537).

Field et al discloses the invention substantially as claimed. The rejection of Claim 6 is incorporated above for the rejection of Claim 1. Regarding Claim 7, the alkali metal is sodium. Though Field teaches using cellulosic polymers, Field et al does not specifically disclose using carboxymethyl cellulose as in Claim 2.

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Allen et al teaches pelletizing ore. Though Allen et al teaches "a difficulty with powdered cellulosic binders such as carboxymethyl cellulose" in column 2, lines 66 and 67, Allen et al teaches nonetheless that carboxymethyl cellulose is a type of cellulosic binder. According to MPEP § 2141.03, a prior art reference must be considered in its entirety, i.e. as a whole, including portions that would lead away from the claimed invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expect that the cellulosic binder in Field et al could be carboxymethyl cellulose, since Allen et al exemplifies such in an agglomerated iron ore pellet.

#### **(10) Response to Argument**

The examiner will follow the list of the grounds of rejection as summarized on page 9 of the notice of appeal.

1. Rejection of Claims 1 and 4 under 35 U.S.C. § 103(a) based on Cobbet.

Appellant argues unexpected results within the range of 0.001-0.07% as claimed. However, appellant has not showed the criticality of the more narrow range that was described in Cobbet. Examples of this range are shown in Tables 1 and 2 of the specification (pages 9 and 11, respectively), i.e. for 0.03%, 0.05% and 0.06% and also 0.08%, which is not within the claimed range. One comparative example is given for 0.2%. Appellant states that "a high amount of alkali metal silicate, i.e. above 0.08%, is undesirable ...." as further stated on page 1, lines 5-19 of the specification. However, though appellant states that this "high amount" (over 0.08%) is undesirable, applicant is not claiming the property of the pellets and actually provides support that the pellets do exist in the prior art in the range taught by Cobbet.

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2. Rejection of Claims 1, 3, 4 and 9 under 35 U.S.C. § 103(a) based on Field

Appellant argues that Field would not have led one of ordinary skill in the art to arrive at Appellant's invention. However, Appellant has not demonstrated the difference between 0.07%, which is the claimed upper limit, and above 0.08%, which is the lower limit in Field. That Field exemplifies higher concentrations does not take away from the overall teaching of the range. Appellant recites this range, above 0.08%, on page 1 of the specification as prior art.

3. Rejection of Claims 2 and 5-8 under 35 U.S.C. § 103(a) based on Field and further in view of Allen.

Appellant argues that Allen teaches away from the use of carboxymethyl cellulose as a cellulosic binder since Allen does not recommend it. However, Allen is not cited to recite the efficacy of carboxymethyl cellulose as a binder, just that it can be used as such. Appellant also argues that the examiner did not explain why the rejection based on the combination of Field and Allen has been maintained. The basis for the combination to teach carboxymethyl cellulose is further addressed in the rejection mailed 1/13/2009, and the lack of teaching to address the deficiencies of Field is addressed on pages 4 and 5 of the rejection mailed 1/13/2009.

4. Rejection of Claims 5 and 8 under 35 U.S.C. § 102(b) based on Johnson.

Appellant argues that the preamble is relevant to the claim. The examiner maintains that the claim is drawn to a binder system. The limitation “for producing iron ore agglomerates” is intended use. Language in the claim that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation, for example statements of intended use or field of use [emphasis added]. See MPEP § 2106.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/T. M. M./

Examiner, Art Unit 1793

Conferees:

/Roy King/

Supervisory Patent Examiner, Art Unit 1793

/Stanley Silverman/

Supervisory Patent Examiner, Art Unit 1793